# ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2 Exhibit)

DATE: February 2000

BUDGET ACTIVITY: 4 - Demonstration and Validation

PE NUMBER AND TITLE: 0603308A Army Missile Defense Systems Integration

| COST (*In Thousands*) | FY1999 Actual | FY 2000 Estimate | FY 2001 Estimate | FY 2002 Estimate | FY 2003 Estimate | FY2004 Estimate | FY2005 Estimate | Cost to Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|
| Total Program Element (PE) Cost | 37929 | 61528 | 12573 | 15760 | 16411 | 21955 | 22272 | Continuing | Continuing |
| D979 Tactical Simulation Interface Unit (TSIU) | 1445 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1445 |
| D988 Range Upgrades | 4816 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4816 |
| D989 Nautilus/THEL | 12038 | 18618 | 0 | 0 | 0 | 0 | 0 | 0 | 30656 |
| D990 Space and Missile Defense (SMD) Integration | 2983 | 28900 | 3398 | 3566 | 3847 | 9145 | 9158 | Continuing | Continuing |
| D997 Space and Missile Defense Battlelab (SMDBL) | 16647 | 14010 | 9175 | 12194 | 12564 | 12810 | 13114 | Continuing | Continuing |

**A. Mission Description and Budget Item Justification:** HQDA General Order No. 5, 1 March 1998, designated the US Army Space and Missile Defense Command (USASMDC), the specified proponent for space and National Missile Defense (NMD) and the operational integrator for Theater Missile Defense (TMD). In response to this designation, the Missile Defense Battle Integration Center (MDBIC) and other existing USASMDC elements were reorganized and merged to form the Space and Missile Defense Battle Lab (SMDBL). The SMDBL is chartered to develop warfighting concepts, focus military science and technology research, and conduct warfighting experiments. The reorganization also created the Force Development and Integration Center (FDIC), a major support element of USASMDC. This project funds the FDIC, which was created to execute the specified proponency role of the USASMDC. The FDIC develops space and NMD solutions to Doctrine, Training, Leader Development, Organization, Materiel, and Soldiers (DTLOMS) and executes their implementation. This project funds the production of requirements for hardware and software solutions, the interfaces with technology development, and the development of operational and system architectures for Space, NMD and TMD. In addition, this project funds analysis and experimentation designed to integrate the pillars of TMD (active defense, passive defense, attack operations, and battle management/command, control, communications, computers, and intelligence functions) and to input Army TMD requirements into Joint forums. This program also supports Aviation and Artillery attack operation systems and passive missile defense materiel solutions.

# ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2 Exhibit)

DATE: **February 2000**

BUDGET ACTIVITY: **4 - Demonstration and Validation**

PE NUMBER AND TITLE: **0603308A Army Missile Defense Systems Integration**

| **B. Program Change Summary** | FY 1999 | FY 2000 | FY 2001 |
|---|---|---|---|
| Previous President's Budget (FY 2000/2001 PB) | 38957 | 12353 | 12580 |
| Appropriated Value | 39240 | 63553 | |
| Adjustments to Appropriated Value | | | |
| a. Congressional General Reductions | -283 | | |
| b. SBIR / STTR | -874 | | |
| c. Omnibus or Other Above Threshold Reductions | | -236 | |
| d. Below Threshold Reprogramming | +2 | -1000 | |
| e. Rescissions | -156 | -789 | |
| Adjustments to Budget Years Since FY 2000/2001 PB | | | -7 |
| Current Budget Submit (FY 2001 PB) | 37929 | 61528 | 12573 |

# ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)

DATE: February 2000

BUDGET ACTIVITY: 4 - Demonstration and Validation

PE NUMBER AND TITLE: 0603308A Army Missile Defense Systems Integration

PROJECT: D979

| COST *(In Thousands)* | FY1999 Actual | FY 2000 Estimate | FY 2001 Estimate | FY 2002 Estimate | FY 2003 Estimate | FY2004 Estimate | FY2005 Estimate | Cost to Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|
| D979 Tactical Simulation Interface Unit (TSIU) | 1445 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1445 |

**A. Mission Description and Budget Item Justification:** As the Army moves toward digitization, Force XXI and beyond, many command and control functions that were once done by grease pencil and map overlays have been replaced by automated, computer controlled workstations. Until only recently, training soldiers on their workstations with realistic simulations was not possible. The Tactical Simulation Interface Unit (TSIU) bridges the gap between the simulation environments and command and control systems by interfacing with simulations compliant with the Institute of Electrical, Electronic Engineer (IEEE) standards governing the use of Distributed Interactive Simulations. The TSIU is a computer "black box" which interfaces, processes, and routes computer-generated simulations to the appropriate Command, Control, Communications, Computers, and Intelligence (C4I) systems. The C41 operator then inputs orders from his workstation, causing the process to be reversed and the simulation to respond accordingly. The TSIU provides the hardware to permit "human in the loop" training to take place using simulations on tactical workstations. The program was accepted as a Warfighter Rapid Acquisition Program (WRAP) initiative, permitting a rapid acquisition of the system to take place.

**FY 1999 Accomplishments:**

- 1445 Developed and prepared documentation, standards, qualifications, and other requirements taking the TSIU from the research laboratory to an acquisition program. Defined and documented message protocols, linking simulations for aviation, artillery fires, Unmanned Aerial Vehicles, and air defense to tactical message formats, including: Variable Message Format; U.S. Messages Test Format; Moving Target Indicator and Position; Tactical Data Link-B (TADIL-B), Tactical Information Broadcast Services (TBIS), TRAP Data Dissemination (TDDS); Secure Comm Data Link (SCDL); and FAAD Data Link (FDL).

Total 1445

**FY 2000 Planned Program:** Project not funded in FY 2000

**FY 2001 Planned Program:** Project not funded in FY 2001

**C. Acquisition Strategy:** Not applicable

# ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)

DATE: February 2000

BUDGET ACTIVITY: 4 - Demonstration and Validation

PE NUMBER AND TITLE: 0603308A Army Missile Defense Systems Integration

PROJECT: D979

| D. Schedule Profile | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 |
|---|---|---|---|---|---|---|---|
| Format Definition | 1-3 Qtr | | | | | | |
| Documentation | 2nd Qtr | | | | | | |
| Build 1 Dev | 4th Qtr | | | | | | |
| One SAF Integration | 3rd Qtr | | | | | | |

# ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)

DATE: February 2000

BUDGET ACTIVITY: 4 - Demonstration and Validation

PE NUMBER AND TITLE: 0603308A Army Missile Defense Systems Integration

PROJECT: D988

| COST (*In Thousands*) | FY1999 Actual | FY 2000 Estimate | FY 2001 Estimate | FY 2002 Estimate | FY 2003 Estimate | FY2004 Estimate | FY2005 Estimate | Cost to Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|
| D988 Range Upgrades | 4816 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4816 |

**A. Mission Description and Budget Item Justification:** Project D988 funds completed range upgrades in support of Atmospheric Interceptor Technology flight tests. In late 1999, the U.S. Army Space and Missile Defense Command participated in the second of two flights from Kodiak Island, Alaska, designed to provide an opportunity for demonstrating various elements potentially suitable for incorporation into a ballistic missile defense system. The flight is a follow-on to the successful missile defense risk reduction flight conducted from Vandenberg Air Force Base, California, on November 5, 1997, and the ballistic missile defense demonstration flight conducted from Kodiak Launch Complex, Alaska, on November 5,1998.

**FY 1999 Accomplishments:**

- 4816 Support of test infrastructure upgrades for flight tests involving Atmospheric Interceptor Technology (AIT) interceptor components at the Kodiak Launch Complex on Kodiak Island, AK.

Total 4816

**FY 2000 Planned Program:** Project not funded in FY 2000

**FY 2001 Planned Program:** Project not funded in FY 2001

**C. Acquisition Strategy:** Not applicable beyond FY99.

| D. Schedule Profile | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2004 | FY 2005 |
|---|---|---|---|---|---|---|---|---|
| Initiate long-lead & fabrication | 2nd Qtr | | | | | | | |
| Complete fabrication/integration | 4th Qtr | | | | | | | |

# ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)

DATE: February 2000

BUDGET ACTIVITY: 4 - Demonstration and Validation

PE NUMBER AND TITLE: 0603308A Army Missile Defense Systems Integration

PROJECT: D989

| COST (*In Thousands*) | FY1999 Actual | FY 2000 Estimate | FY 2001 Estimate | FY 2002 Estimate | FY 2003 Estimate | FY2004 Estimate | FY2005 Estimate | Cost to Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|
| D989 Nautilus/THEL | 12038 | 18618 | 0 | 0 | 0 | 0 | 0 | 0 | 30656 |

**A. Mission Description and Justification:** Project D989 funds continue the Tactical High Energy Laser (THEL) Advanced Concept Technology Demonstration (ACTD) and field testing at the High Energy Laser Systems Test Facility (HELSTF). The THEL ACTD is a joint U.S./Israel program to design, fabricate, and test a tactical-sized THEL demonstrator to evaluate the effectiveness of high energy lasers (HELs) to defeat the threat posed by Katyusha and similar short range artillery rockets. The THEL ACTD is an integration effort that supports the active defense pillar of Theater Missile Defense. The Radar Power Technology will develop technology for lighter, smaller, and more fuel efficient radar systems. Acoustic Technology Research will Develop and demonstrate the benefit of acoustic technologies employed on the surface or on airborne platforms to detect and assist in classification of high priority targets and cruise missiles.

**FY 1999 Accomplishments:**

- 12038 Continued THEL integration and field testing at HELSTF.

Total 12038

**FY 2000 Planned Program:**

- 9545 Completion of the THEL system demonstration test and evaluation at HELSTF.
- 3818 Radar Power Technology – demonstrate use of distributed power to drive radar sub-array; demonstrate S/N improvement based on advanced signal processing.
- 3818 Acoustic Technology Research – Develop experimental hardware and software. Conduct field test for signature characterization. Develop concept for elevated acoustic sensor system to detect stealthy battlefield threats. Develop concept for low frequency acoustic detection system.
- 909 Family of Systems Simulators
- 528 Small Business Innovative Research/Small Business Technology Transfer Programs (SBIR/STTR)

Total 18618

**C. Acquisition Strategy:** On 18 Jun 99, the THEL contract was restructured to provide a cost sharing arrangement where the US pays 25%, Israel pays 25%, and TRW pays 50% of the cost until the THEL system successfully shoots down a rocket.

# ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)

DATE: **February 2000**

BUDGET ACTIVITY: **4 - Demonstration and Validation**

PE NUMBER AND TITLE: **0603308A Army Missile Defense Systems Integration**

PROJECT: **D989**

| D. Schedule Profile | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2004 | FY 2005 |
|---|---|---|---|---|---|---|---|---|
| **Initiate Long Leads & Fabrication** | | | | | | | | |
| Complete Fabrication/Integration | 2nd Qtr | | | | | | | |
| Complete TRW THEL ACTD Testing | 4th Qtr | | | | | | | |
| Complete HELSTF Field Testing | | 3rd Qtr | | | | | | |

# ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)

DATE: February 2000

BUDGET ACTIVITY: 4 - Demonstration and Validation

PE NUMBER AND TITLE: 0603308A Army Missile Defense Systems Integration

PROJECT: D990

| COST (*In Thousands*) | FY1999 Actual | FY 2000 Estimate | FY 2001 Estimate | FY 2002 Estimate | FY 2003 Estimate | FY2004 Estimate | FY2005 Estimate | Cost to Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|
| D990 Space and Missile Defense (SMD) Integration | 2983 | 28900 | 3398 | 3566 | 3847 | 9145 | 9158 | Continuing | Continuing |

**A. Mission Description and Justification:** HQDA General Order No. 5, 1 March 1998, designated the US Army Space and Missile Defense Command (USASMDC), the specified proponent for space and National Missile Defense (NMD) and the operational integrator for Theater Missile Defense (TMD). In response to this designation, the existing USASMDC elements were reorganized and merged to form the Force Development and Integration Center (FDIC). This project funds the FDIC, a major support element of USASMDC, created to execute the specified proponency role of USASMDC by developing space and NMD solutions to Doctrine, Training, Leader Development, Organization, Materiel, and Soldiers (DTLOMS) and execute their implementation. This project funds the production of requirements for hardware and software solutions, interfaces with technology development, and development of operational and system architectures for Space, NMD and TMD. In addition, this project funds analysis and experimentation designed to integrate the pillars of TMD (active defense, passive defense, attack operations, and battle management/command, control, communications, computers, and intelligence functions) and to input Army TMD requirements into Joint forums. These inter-pillar and intra-pillar products, required to accomplish the integrated TMD mission, exceed the scope of other programs. This program also supports Aviation and Artillery attack operation systems and passive missile defense materiel solutions. The Microelectromechanical System (MEMS) program will develop generic packaging technologies applicable to a wide array of MEMS structures and applications. The program will define and demonstrate these packaging technologies on a MEMS monitoring system for space and missile defense applications. The MSI program will demonstrate the enhanced detection of weapons of mass destruction using miniature sensor designs and rapid methods.

**FY 1999 Accomplishments:**

- 2983 Developed and published FM 40-1 (JTAGS Operations), TP 525-91 (TMD Integrating Concept) and Theater Missile Defense (TMD) Master Plan. Developed and established the Army Space Master Plan, the Functional Area (FA) 40, Space Operations Officer Personnel Proponency Office and began developing the FA 40 Training Course. Participated as Army Lead in Joint TAMD and JMAA processes. Completed the NMD ORD.

Total 2983

**FY 2000 Planned Program:**

- 3116 Space and Missile Defense - Plan, develop, and execute concepts and DTLOMS solutions for Space and NMD. Represent users of space and NMD in development of operational and training requirements and test and evaluation to include SBIRS, M3P/JTAGS and space control capabilities. Lead Army's efforts in Joint Theater Missile Defense (JTMD) architecture development. Expand Space and TMD Master Plans to the 2010 time frame. Sponsor exploration of future space and missile defense warfighting efforts. As the FA 40 personnel proponent, ensure that the Army's Space Operations Officers are thoroughly trained and assigned effectively to meet the needs of Joint and Army commanders.
- 6223 Microelectromechanical System - Define opportunities for MEMS packaging. Initiate tasks in development of packaging demonstration.

| ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit) | DATE February 2000 |
|---|---|
| BUDGET ACTIVITY<br>**4 - Demonstration and Validation** | PE NUMBER AND TITLE<br>**0603308A Army Missile Defense Systems Integration** |
| | PROJECT<br>**D990** |

**FY 2000 Planned Program: (continued)**

- 1915 Aero-acoustics Instrumentation Technology – Test facility development; high frequency sensor development; and composite structure dynamic pressure instrumentation.
- 2872 Missile System Integration - Demonstrate a field portable device for detection; complete design of miniaturized sensor; complete rapid spectral analysis method.
- 14073 Missile Defense Flight Experiment Support – Support flight test experiment in the FY 01 flight from the Kodiak Launch complex.
- 701 Small Business Innovative Research/Small Business Technology Transfer Programs (SBIR/STTR)

Total 28900

**FY 2001 Planned Program:**

- 3398 Space and Missile Defense - Increase FDIC's efforts to plan, develop, and execute concepts and DTLOMS solutions for Space and NMD. Represent users of space and NMD in development of operational and training requirements and test and evaluation to include SBIRS, M3P/JTAGS and space control capabilities. Lead Army's efforts in developing and executing Joint Theater Missile Defense (JTMD) architecture. Expand Space and TMD Master Plans beyond the 2010 time frame. Sponsor exploration of future space and missile defense warfighting efforts. As the personnel proponent for space operations officers, ensure that the Army's Space Operations Officers (FA 40) are thoroughly trained and assigned effectively to meet the needs of commanders.

Total 3398

**B. Other Program Funding Summary:** There are no other related efforts.

**C. Acquisition Strategy:** Program is continuous. Various performers will conduct planned accomplishments.

| **D. Schedule Profile** | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2004 | FY 2005 |
|---|---|---|---|---|---|---|---|---|
| Continue development/synchronization of space and NMD DTLOM solutions & TMD integration, & execute personnel proponency responsibilities. | 1-4 Qtrs | 1-4 Qtrs | 1-4 Qtrs | 1-4 Qtrs | 1-4 Qtrs | 1-4 Qtrs | 1-4 Qtrs | 1-4 Qtrs |

# ARMY RDT&E COST ANALYSIS (R-3)

DATE: February 2000

BUDGET ACTIVITY: 4 - Demonstration and Validation

PE NUMBER AND TITLE: 0603308A Army Missile Defense Systems Integration

PROJECT: D990

I. Product Development: Not applicable

| II. Support Costs | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 1999 Cost | FY 1999 Award Date | FY 2000 Cost | FY 2000 Award Date | FY 2001 Cost | FY 2001 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| a. Govt Support and Support Contracts | MIPR CPFF, VAR | Various, VA | 5350 | 2983 | | 28900 | | 3398 | | Cont | Cont | |
| Subtotal Support Costs: | | | 5350 | 2983 | | 28900 | | 3398 | | Cont | Cont | |

III. Test and Evaluation: Not applicable

IV. Management Services: Not applicable

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Project Total Cost: | | | 5350 | 2983 | | 28900 | | 3398 | | Cont | Cont | |

# ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)

DATE: February 2000

BUDGET ACTIVITY: 4 - Demonstration and Validation

PE NUMBER AND TITLE: 0603308A Army Missile Defense Systems Integration

PROJECT: D997

| COST (*In Thousands*) | FY1999 Actual | FY 2000 Estimate | FY 2001 Estimate | FY 2002 Estimate | FY 2003 Estimate | FY2004 Estimate | FY2005 Estimate | Cost to Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|
| D997 Space and Missile Defense Battlelab (SMDBL) | 16647 | 14010 | 9175 | 12194 | 12564 | 12810 | 13114 | Continuing | Continuing |

**A. Mission Description and Justification:** Project D997 funds the development of warfighting concepts, focuses military science and technology research, and conducts warfighting experiments, within the Space and Missile Defense Battlelab (SMDBL), (formerly the Missile Defense Battle Integration Center (SMDBIC). The project will provide users and materiel developer results from experimentation programs, operational analyses, and synthetic battlefield models, simulations, and tools for integrating missile defense and space assets and supporting requirement development activities. The mission of the SMDBL is to integrate space and missile defense into Force XXI/ joint and combined operations through the planning, execution, and analysis of warfighting experiments and technology demonstrations in order to examine advanced concepts and technology which enhance the Commander's capability to fight and win on the 21st century battlefield. This type integration, experimentation, analysis of space and missile defense is not done elsewhere in the Army.

**FY 1999 Accomplishments:**

- 8938 Conducted experimentation for the following: Army Experiment; III Corps Warfighter Experiment; U. S. Army Central Command Deep Operations Coordination Cell Exercise; Joint Project Optic Windmill; Northern Edge 99; Joint Task Force Exercise; Roving Sands; Ulchi Focus Lens; Battle Command Reengineering experiment; No Horizons Exp; Weather Army Battle Command System Integration; Meteorological Automated Sensor & Transceivers Evaluation; Silent Lightening; and Force Warning Exp. Deployed weather satellite workstation to Albania; developed SMDC Experimentation Campaign Plan, linking Army and Joint Exp. Campaign Plans; developed experiment plans for the Discoverer II Program.
- 950 Completed additional development of the Synthetic Battlefield Environment, to include various interfaces to enhance the realism and fidelity of missile defense training, exercises, and testing. Provided enhancements to the Synthetic Battlefield Center (SBC) to support both customer and internally funded exercises, and warfighter tactical workstation stimulation testing.
- 4816 Conducted stand alone training events, incorporating advanced missile defense hardware/software products linking simulations to tactical workstations, and further enhanced After Action Review (AAR) capabilities for Experiments, Exercises, Training and Analysis. Developed Fire Support Simulation Tools (FSST) and the Digital Battle Staff Trainer (DBST). Developed and field tested prototype simulation and training tools including ARCTIC; Tactical Simulation Interface Unit (TSIU) and the STALKER. "Fly away package" for 32nd AAMDC modernization.
- 1205 Performed space and missile defense studies and analyses, including Space Control Map Exercise DTLOMS solutions for a space threat in the 2010 timeframe; Space Mission Area Analysis; Joint Theater & Air Missile Defense (JTAMD) related analysis; analyses of advanced concepts & technologies. Incorporated existing testbeds and migrated to the DOD's High-level Architecture. Provided modeling, simulation and advanced visualization capabilities for battle lab experiments, trainers, material developers and other decision-makers.

| ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit) | DATE February 2000 |
|---|---|
| BUDGET ACTIVITY<br>**4 - Demonstration and Validation** | PE NUMBER AND TITLE<br>**0603308A Army Missile Defense Systems Integration** |
| | PROJECT<br>**D997** |

**FY 1999 Accomplishments: (continued)**

- 738 Established "space" site in Warfighter Simulation (WARSIM) Functional Description of the Battlespace; completed testing for One Semi-automated forces (SAF) beta code; established plan to develop a space & missile defense models & simulation investment strategy; initiated incorporation of space functionality into Battle Command Training Program.

Total 16647

**FY 2000 Planned Program:**

- 5957 Plan, develop, and execute SMDBL experiments in coordination with TRADOC requirements and procedures. Experiments directly involved in Joint Contingency Force Advanced Warfighter Experiment (AWE) - Tactical Weather – IMETS; Space-Based Forced Warning; Eagle Vision II; and Enroute Mission Planning and Rehearsal System (EMPRS) and Army Space Exploitation Demonstration Program/Army Battle Control System Integration. In addition, Total Defender Experiment; No Horizons Experiment; Black & White Integration Phase I; Army Experimental Campaign Plan; and Battlefield Command Reengineering Initiative Experiment Phase I.
- 5038 Plan, develop, execute SMDBL participation on Army/Joint Exercise and Training events, to include Strike Force, Fire Simulation Support Tools, Digital Battle Simulation Tool Follow-On, and Optic Windmill 00. Also provides for Tactical Simulation Integration Unit (TSIU) IV &V and TSIU High Level Architecture compliance.
- 1570 Model and simulation infrastructure to support experimentation, exercise and training, and analysis programs. Includes mgmt of M&S domains, continuation of M&S investment strategy, incorporate space and missile defense functionality in BCTP events; include space and missile defense in the Joint Warfighting Simulation (JWARS), WARSIM functional description of the battlefield (FDB).
- 1155 Operational analysis support to space and missile defense experiment programs and support to other SMDC and Army programs requiring operational analysis, including establishment of capability to conduct analysis of the impacts of space-based sensors in an approved Army simulation; analysis of military utility of space-based radar and spectral imagery; form federation between EADSIM and Fire Support Simulation (FIRESIM) to simultaneously conduct analysis of active defense and attack operations.
- 290 Small Business Innovative Research/Small Business Technology Transfer Programs (SBIR/STTR)

Total 14010

**FY 2001 Planned Program:**

- 3783 Conduct Missile Defense Integration & Experiments and Exercises – Theater Missile Defense Coordination Cell Exercise; Northern Edge; Fire Simulations Support Tools Digital Battlefield Sustainment Trainer; Foal Eagle; Fleet Battle; No Horizons Phase II; Medium Combat Brigade Army Warfighter Experiment; Hardware/Software Integration Center upgrade/enhancements.
- 3563 Conduct Space Experimentation & Exercises – Battle Command Reengineering Initiative (BCRI); Enroute Mission Planning & Rehearsal System (EMPRS) Phase II; Light Forces Battle Command Advanced Concept Technology Demonstration.

| ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit) | DATE February 2000 |
|---|---|
| BUDGET ACTIVITY<br>**4 - Demonstration and Validation** | PE NUMBER AND TITLE<br>**0603308A Army Missile Defense Systems Integration** |
| | PROJECT<br>**D997** |

**FY 2001 Planned Program: (continued)**

- 1829 Develop Models, Simulations, and Assessment Tools – Enhancements to Joint Simulations (JSIMs), Warfighter Simulation (WARSIM); maintain modeling and simulation infrastructure for experiments, exercises and analysis programs.

Total 9175

**B. Other Program Funding Summary:** There are no other related efforts.

**C. Acquisition Strategy:** Program is continuous. Contracts/Tasks Orders are in place for obligation. Various performers will conduct planned accomplishments.

**D. Schedule Profile:** Program is continuous. Various performers will conduct planned accomplishments

# ARMY RDT&E COST ANALYSIS (R-3)

DATE: February 2000

BUDGET ACTIVITY: 4 - Demonstration and Validation

PE NUMBER AND TITLE: 0603308A Army Missile Defense Systems Integration

PROJECT: D997

I. Product Development: Not applicable

| II. Support Costs | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 1999 Cost | FY 2000 Award Cost | FY 2000 Cost | FY 2000 Award Date | FY 2001 Cost | FY 2001 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| b. Experiments, Exercises, Enhancements, Maintenance, analysis | CPAF/CPFF | Various, AL & CO | 28254 | 12166 | | 9210 | | 4675 | | Cont | 54305 | |
| c. Govt Support and Support Contracts | MIPR | Various, AL & CO | 9000 | 4481 | | 4800 | | 4500 | | Cont | 22781 | |
| Subtotal Support Costs: | | | 37254 | 16647 | | 14010 | | 9175 | | | 77086 | |

III. Test and Evaluation: Not applicable

IV. Management Services: Not applicable

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Project Total Cost: | | | 37254 | 16647 | | 14010 | | 9175 | | | 77086 | |